

What is claimed is:

1. A substrate treating method for performing a predetermined treatment of a plurality of substrates as immersed in
5 a heated treating solution, wherein:
said substrates are immersed in the treating solution for a progressively extended time as said substrates treated increase in number.
- 10 2. A substrate treating method as defined in claim 1, comprising:
a step of counting said substrates to be treated;
a step of determining a processing time according to a count of said substrates;
15 a step of immersing said substrates in said treating solution for said processing time; and
a step of withdrawing said substrates from said treating solution upon lapse of said processing time.
- 20 3. A substrate treating method as defined in claim 2, further comprising a step of immersing said substrates in a cleaning liquid after withdrawing said substrates from said treating solution.
- 25 4. A substrate treating method as defined in claim 1,

comprising:

a step of placing, on a container rest, a container storing said substrates to be treated;

5 a step of counting said substrates in said container based on a detection of alternating interception and transmission, by said substrates, of light emitted from a light emitter of a transmission type sensor, the detection being made by a light receiver of said transmission type sensor, said transmission type sensor being movable downward
10 with a shutter provided for opening and closing an opening in a partition acting as an atmospheric barrier between said container rest and a treating station;

a step of determining a processing time according to a count of said substrates;

15 a step of immersing said substrates in said treating solution for said processing time; and

a step of withdrawing said substrates from said treating solution upon lapse of said processing time.

20 5. A substrate treating apparatus for performing a predetermined treatment of a plurality of substrates as immersed in a heated treating solution, comprising:

substrate count acquiring device for acquiring a count of said substrates to be treated;

25 storage device for storing beforehand a relationship

between count of the substrates and processing time for immersion in the heated treating solution;

processing time determining device for determining a processing time according to the count of said substrates acquired by said substrate count acquiring device, by referring to said relationship stored in said storage device; and treating device for immersing said substrates in the heated treating solution for the processing time determined by said processing time determining device.

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6. A substrate treating apparatus as defined in claim 5, wherein said substrate count acquiring device is a transmission type optical sensor.

15 7. A substrate treating apparatus as defined in claim 5, wherein said substrate count acquiring device is a reflection type optical sensor.

8. A substrate treating apparatus as defined in claim 5, wherein said substrate count acquiring device is a CCD camera.

9. A substrate treating apparatus as defined in claim 5, further comprising a container rest for receiving a container storing said substrates to be treated, said substrate count

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acquiring device counts said substrates in said container placed on said container rest.

10. A substrate treating apparatus as defined in claim 9,
5 wherein said substrate count acquiring device is mounted on a shutter provided for opening and closing an opening in a partition acting as an atmospheric barrier between said container rest and a treating station.

10 11. A substrate treating apparatus as defined in claim 9, wherein said substrate count acquiring device is disposed separately from a shutter provided for opening and closing an opening in a partition acting as an atmospheric barrier between said container rest and a treating station.

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12. A substrate treating apparatus as defined in claim 9, wherein said substrate count acquiring device is mounted on a substrate loading robot for fetching said substrates to be treated from said container and depositing treated
20 substrates in said container.

13. A substrate treating apparatus as defined in claim 5, wherein said substrate count acquiring device is arranged to acquire the count of said substrates to be treated, in form of
25 data given from an external device.

14. A substrate treating apparatus as defined in claim 5,
wherein said substrate count acquiring device is arranged to
acquire the count of said substrates to be treated, in form of
5 a key input from a control unit.

15. A substrate treating apparatus as defined in claim 5,
wherein said treating device is arranged to withdraw said
substrates from said heated treating solution upon lapse of
10 said processing time, and immerse said substrates in a
cleaning liquid.

16. A substrate treating apparatus as defined in claim 5,
wherein said treating device is arranged to introduce a
15 cleaning liquid into a treating tank storing said heated treat-
ing solution upon lapse of said processing time, to replace
said treating solution in said treating tank with said clean-
ing liquid.